ADVANCE PRODUCT INFORMATION - JUL 4, 2011

Features

- Multiphase SMPS controller for Boost, SEPIC and Flyback Converters
- Wide input voltage range from 5V to 60V
- 20µA typical shutdown current
- 9 phases configurable in 4 modes with up to 3 independent voltage or current regulators
- Open load stability and overvoltage protection
- Adjustable switching frequency of up to 4.5 MHz
- Selectable internal or external voltage references
- Internal soft start time control
- Reduced input and output current ripple due to optimized mode-dependent phase distribution
- Integrated SMPS MOSFET drivers and load switches
- Undervoltage lockout and thermal shutdown
- AEC-Q100 qualified

Applications

- Industrial high power supplies
- High efficiency multiple string Power-LED drivers
- Wide range constant color PWM LED dimming
- Motor, actuator and valve driving
- Point-of-Load Power Supplies
- Renewable energy systems

Ordering Information

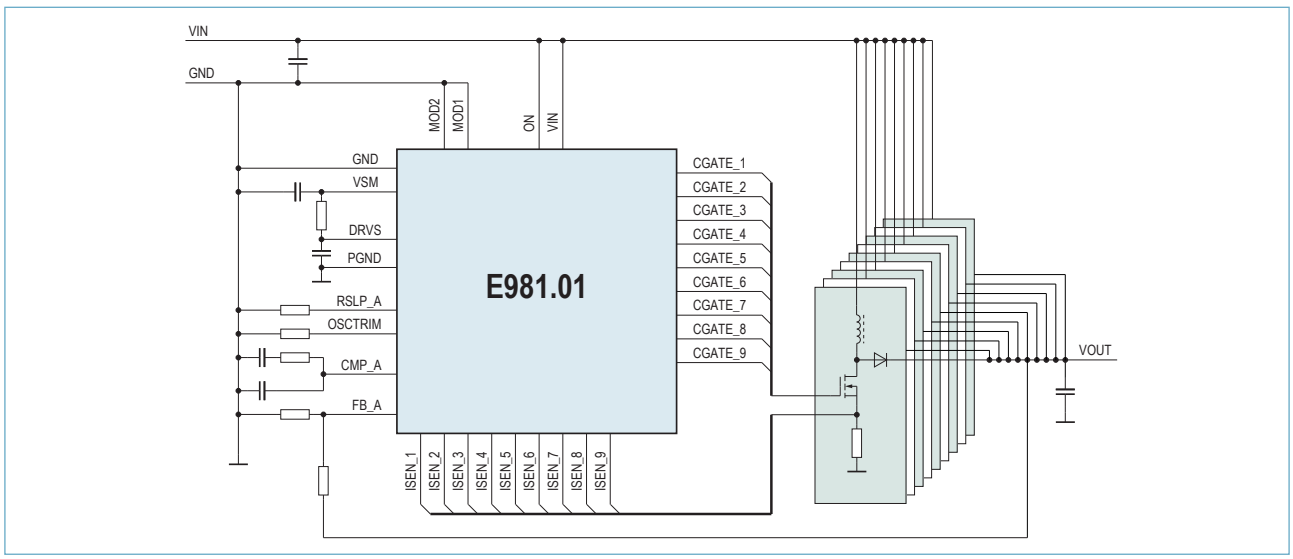
Product ID	Temp. Range	Package
E981.01	-40°C to +125°C	QFN64L9

General Description

E981.01 is a versatile wide input voltage multi channel and multi phase control IC for High Power Switch Mode Supplies in industrial and automotive applications. The IC is designed to drive up to nine single-switch lowside N-channel MOSFETs in Boost, SEPIC and Flyback topologies. Up to three outputs can be controlled by independent constant frequency regulation circuits. With the implemented phase shifting techniques the input and output current ripples are largely cancelled for low electromagnetic emission and small capacitor designs for long MTBF.

Operating frequency can be set by an external resistor within a range of 100kHz to 500kHz per phase, resulting in total maximum switching frequency of 4.5 MHz. An internal softstart controller reduces startup current without additional external components. Different references are selectable individually for each of the three regulators for optimal performance in constant voltage or constant current mode.

The E981.01 provides three independent CMOS compatible PWM inputs. In LED control applications, very high constant LED color dimming ratios of up to 2000:1 are possible. Built-in features, like thermal protection, over-voltage protection, low shutdown and quiescent current, the wide input voltage range and the large junction temperature range make the controller ideal for industrial, automotive and battery powered applications.



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